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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,304	11/28/2000	Yi-Ping Li	1564.1012-000	4830

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EXAMINER

CHEU, CHANGHWA J

ART UNIT

PAPER NUMBER

1641

DATE MAILED: 01/13/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,304

Applicant(s)

LI ET AL.

Examiner

Jacob Cheu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment filed on 11/5/2003 has been received and entered into record and considered.

The following information provided in the amendment affects the instant application:

1. Claims 5, 7, 13-15 cancelled.
2. Currently, claims 1-4, 6, 8-12 are under examination.

Specification

1. Applicant submits newly amended specification on 11/5/2003. The specification is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (i.e. see amended page 7). Applicant is requested to delete all embedded hyperlinks and/or other form of browser-executable codes. See MPEP § 608.01

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 8-12 are rejected under 35 U.S.C. 102 (b) as being anticipated, or in the alternative, under 103 (a) as obvious over Bonaldo et al. (Genome Research (1996) 6: 791-806; GenCore version search report)

Bonaldo et al. teach normalization and subtraction approaches to facilitate gene discovery. (See Abstract) Bonaldo et al. teach a nucleic acid comprising the instant invention sequence from 319-555 of SEQ ID No. 1 and its corresponding encoded amino acid sequence as SEQ ID No. 2. (See GenCore version) Bonaldo et al. teach hybridization to select nucleic acid complementary

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to the probes, linked the target sequence with a regulatory sequence, transfecting the interested DNA into host cell, e.g. E. Coli bacteria, and culturing the bacteria for harvesting the polypeptide encoded by the transfected DNA, isolating and identifying the polypeptides from the bacteria. (See Methods: Construction of directionally cDNA libraries, Production of purified covalently closed single-stranded library DNA in vivo, Noarmalization and Substration- page 801-805) Although position 251 of Bonaldo et al. reference is not specified, i.e. "n", it still encompasses the claimed invention "g", or alternative, it would have been obvious to one skilled in the art at the time the invention was made to select "g" since the genus of the nucleotides are extremely small, e.g. "a, g, c, t", and exchange alternative nucleotides involves routine skill in the art. See *In re Schaumann*, 572 F.2d 312, 197 USPQ 5 (CCPA 1978)

Response to Applicant's Arguments

Utility/ Enablement

4. Applicant argues that the instant invention possess the capability of detecting OBP1 mRNA in osteoblast, thus meets the threshold of utility requirements. (See Figure 2) Applicant arguments have been considered and appear persuasive. Thus examiner withdraws utility rejection set forth in the previous office action. Similarly, examiner withdraws enablement rejections because applicant has disclosed the necessary sequence of detecting the target protein, it would be within the skill of those in the art to use recombinant technique to manufacture the protein encoded by the sequence.

35 U.S.C. §102/103

5. Applicant argues that the prior art cited for 35 U.S.C. §102 does not anticipate the instant claimed invention because on position 389 of the claimed SEQ ID No.1 is a "g" nucleotide, whereas the prior art reference has a non-specified "n" at position 251. Applicant's argues that "n" in the reference reveals "unknown" identity, or no identity revealed at all. (See Remarks on page 12, third paragraph) Applicant's argument has been considered but appears not persuasive.

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Although "n" is not specified in the reference, given the fact that there are only 4 nucleotides available in any biological organism, namely "a", "g", "c", "t", it would have been within the contemplation to one skill in the art using "g", or alternatively, it would have been obvious to one skilled in the art at the time the invention was made to have selected "g" species in this small genus since it has been held when the reference teaches a small genus which places a claimed species in the possession of the public as in *In re Schaumann* (572 F.2d 312, 197 USPQ 5 (CCPA 1978), and the species would have been obvious even if the genus were not sufficiently small to justify a rejection under 35 U.S.C 102.

Conclusion

6. No claim is allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Cheu whose telephone number is 703-306-4086. The examiner can normally be reached on 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 703-305-3399. The fax phone number for the organization where this application or proceeding is assigned is 703-746-9434.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3399.

Jacob Cheu



Examiner

Art Unit 1641

December 31, 2003



12/31/03
RECEIVED
JANUARY 1, 2004

1/12/04